Introduction

The Chicago Fiscal and Equity Policy Initiative is an Egan Urban Center project funded by the Annie Casey Foundation. While the central focus is Chicago, the Foundation is interested in learning about policies and practices in the areas of public education, jobs and workforce development, and environment and community that have implications for other cities. Along with Working Groups in each of the other areas, the objective of the Jobs Committee Working Group was to identify and analyze the most current research on policies and practices in the fields of workforce development, economic development and jobs training and placement and to recommend ways in which the findings can be applied to Chicago (M. Bennett).

It is the Jobs Committee contention that rather than align the Policy Group’s policy prescriptions/recommendations with assertions that argue against a reductionist cut and divestment strategy, we should instead support President Obama’s “Win the Future” campaign which advocates for strategic investment in America’s human and physical infrastructure (e.g. revamped health care system, high performing
educational system; demand-side technical and vocational education; and advanced manufacturing that stress universal competence in math, science and engineering, business development and critical thinking skills).

**Existing Conditions and Challenges for Workforce Development Policy**

**Changing Demographics and Employment Context for Chicago’s Workforce**
The population and demographic characteristics of Chicago has changed in recent years, indicating a shift in what services may be needed by Chicago job seekers, where programming is targeted, and what specific populations could benefit from additional support in finding and retaining employment. In a recent report highlighted below, Chapin Hall at the University of Chicago conducted a thorough analysis of the evolving context of the population and labor force in Chicago.

Chicago’s population has increased over the last few decades, but the percentage of certain populations is declining: the percentage of whites, and to a lesser extent, blacks, is declining, while the Hispanic population has been steadily rising since 1980. Between 1970 and 2000, the suburban labor force grew rapidly while maintaining its unemployment rate, while the unemployment rate in the city of Chicago increased. The suburbs tend to be predominantly white, and the areas of the city with the highest rates of unemployment are predominantly black. In the Chicago area, black males have the lowest employment rates (50%), while Hispanic males have the highest (75%). White females had employment rates higher than both black and Hispanic females.

Just as the employment rates differ by race, so do median wages. Whites had the highest median wages when also looking at blacks and Hispanics at the same education levels. While the Hispanic population shows high employment rates across all educational attainment levels, their wages are much lower than whites.

The education attainment of the Chicago population has increased since the 1970’s, with more individuals having some college education or education beyond college, and fewer individuals having an education at a high school level or less. In 1970, the population with a college degree was 11.7 percent, and increased to 30.1 percent in 2000. At those same marks, high school dropouts decreased from 46 percent to 19 percent. Though Chicago’s educational attainment is about average in comparison

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to other cities, the percentage of residents with a bachelor’s or graduate degree is higher than average.

Chicago’s industries have also evolved over recent decades. The share of manufacturing positions has declined, though the industry remains one of the largest in the Chicago area. Service industry positions have increased over the last several decades, and the industry employed the largest proportion of Chicago workers in 2000. Since then, the information, communication, and technology industry has seen the largest growth, and as of 2008, the largest number of employees works in health care and social assistance, retail trade, and manufacturing industries.

**Addressing the skills gap: the jobs available and the jobs for which residents are trained**

Another issue facing both unemployed and employers with open positions is the skills gap – the difference between the skills that potential employees have and the skills that are required to be successful in a particular position. This skills gap is particularly an issue in industries such as manufacturing, where employers have reported that they have difficulty addressing the gap between the talent they need to advance their business and the talent they can actually find. In a 2011 survey conducted by Deloitte Development and The Manufacturing Institute, 67% of respondent manufacturers reported a moderate to severe shortage of qualified workers, particularly in skilled production jobs. The shortage isn’t minor: the survey indicates that 5% of positions at respondent manufacturers, or approximately 600,000 jobs nationwide, are unfilled because of the skills gap and the lack of qualified candidates.² This skills gap impacts both employees and employers, and, hinders the creation of additional jobs by slowing the growth and evolution of companies in affected industries.

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Recommendations

The Jobs Committee Working Group has identified a set of recommendations to improve Chicago’s workforce development policy. The recommendations are as follows:

**Governance and Structure**

**Recommendation:** Create a City Department of Workforce Development and/or name a Chief of Workforce Development Officer for the city, with cabinet status.

Regardless of the plan to consolidate workforce development programs of the city and county, it is imperative that the city maintain its commitment to the city’s employers and workforce. This is not a responsibility that can be abdicated by passing it along to a new entity. The mayor must have someone he holds accountable for high quality, effective workforce development programming and results, just as the voters must hold him accountable. Any merger that is worked out should minimally be a shared responsibility of city and county and not be dominated by one or the other. City workforce staff represents valuable experience that should not be disregarded.

When the Mayor’s Office of Workforce Development was eliminated, staff and programs were moved into the Department of Family Support Services. As a result, the city’s commitment to its residents in terms of support for increasing their ability to earn a decent living became almost invisible – both to workers and potential employers. Furthermore, embedding workforce development in a department that is basically comprised of social services tends to misrepresent what workforce development is about. It is an economic development strategy based on education and training, not a social service such as child welfare.
This seeming disregard for the importance of developing the workforce, and therefore, ensuring a healthy city economy, should not be perpetuated by the Emmanuel administration.

The current plans to merge the city and county workforce development responsibilities into one department administered by the county underscores the concern of the workforce development community. City administration needs to assume a leadership role in supporting the workforce development community and improving the development of human capital for the future of Chicago.

**Recommendation: Align the workforce system at the city, county and state levels.**

While the city and county may be moving in this direction with the proposed merger of their workforce programs, the next step would be to clearly identify workforce development programs embedded in various state agencies and work with the leadership in each department to work on a similar application process and reporting system so that similar client data is required regardless of the source of government funding. As indicated in a report on the difficulties spurred by differing operating procedures and reporting efforts, with so many similar organizations operating in so many unique ways, any efforts made to improve practice are usually localized, and not easily transferrable to other organizations.\(^3\) Change and improvement is often isolated, and programs not only face challenges in working together, but also in implementing improved procedures that have been proven to be effective in other settings. Cross-program alignment in what is required from participants in different agencies would make coordination between programs a more streamlined process. Working with multiple agencies to identify a best practice to be followed by all programs could be a starting point on the route to more comprehensive alignment. Better alignment of client data would be especially helpful in regard to the Job Training and Development (JTED) Grant Program, the skills training program in DCEO.

**Education and Training**

**Recommendation: Coordinate workforce development and education systems.**

In recent years, community-based organizations (CBOs) identified a significant gap in basic skills that kept ESL and Adult Basic Education (ABE) students from taking advantage of post-secondary education and skills training programs. They set out to

create a bridge to close this gap. Numerous examples of such bridge programs are described in the Chicago Workforce Investment Council’s *Chicago CBO Bridge Report*, released in 2011. In nine out of the thirteen examples of bridge programs included in this report, the skills training program on the other end of the bridge is provided by one or more of the City Colleges of Chicago, but CBOs also bridge to programs at other CBOs.

Bridge Programs accelerate educational attainment for low-skilled individuals in order to “bridge” them to skills training and community college programs. Bridge programs “help adult students get the academic, employability, and technical skills they need to enter and succeed in postsecondary education and training programs”. The Illinois Department of Commerce and Economic Opportunity (DCEO) and the Illinois Community College Board (ICCB) have agreed on the core components of bridge programs:

- Contextualized instruction that integrates basic reading, math, and language skills with occupational knowledge
- Career development that includes career exploration, career planning, and understanding of the world of work
- Transition services that provide students with the information and assistance they need to successfully navigate the process of moving from adult education to credit or occupational programs

Research confirms what CBOs had already figured out, namely, that the best way to achieve employability is to increase the number of low-skilled individuals who either complete at least one year of education past high school or earn an industry recognized credential. Bridge programs make it possible for the low-skilled, educationally disadvantaged to pursue those post-secondary opportunities.

In addition to their report, the Chicago Workforce Investment Council’s Literacy-to-Work initiative aims to coordinate resources and promote best practices in combining literacy and job skills training. The end goal of CWIC’s initiative and

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6 Chicago Workforce Investment Council, What We Do. [http://www.cwic.org/WhatWeDo/HumanCapital.aspx](http://www.cwic.org/WhatWeDo/HumanCapital.aspx)
of all bridge programs is to increase Chicago's return on investment for public spending on low-skilled individuals.

Bridge programs and the Literacy to Work program have many similarities, but it is their differences that highlight the need for increased coordination between systems. Better coordination could help to ensure that the programs do not unnecessarily overlap, and that they reach as many participants as possible who could best benefit from their programs.

Aligning workforce development with education systems involves looking at multiple education institutions and identifying where they fit in to the career pathway. People need an understanding of their career path, and an understanding of the programs and institutions that can help them along that path to a desired career goal. When workforce development systems and education systems are better coordinated, an individual’s career path, from enrolling in an ESL, ABE, or GED program, to a bridge program, to a training program, to job placement, will be more distinct and better defined. This will result in an improved picture of the time and resources required to get from point A to point B in workforce development for the hard-to-employ.

One difficulty in aligning workforce development and education systems is the number of institutions that host one or more of these programs: City Colleges of Chicago, Chicago Public Schools, public-private training partnerships, and CBOs, labor unions and quasi-governmental entities like the CWIC. While there are certainly benefits to having a wide range and variety of education and training programs available, it is also important to have coordination between the providers to best utilize their resources and abilities to help enroll, and stay enrolled, in appropriate programs.

**Recommendation: Develop and support career development programs for elementary, middle, and high school students (in concert with education committee).**

The Chicago Public Schools has been actively engaged in improving and reforming Career and Technical Education (CTE) for high school students. These efforts need to be supported as well as augmented with efforts to bring career-related instruction to early grades in middle and even elementary school. In order to foster the development of the next generation of Chicago’s labor force, CPS should continue their dedicated efforts (e.g. changes in curriculum, facilities, teacher training, compensation, community engagement, parental involvement, continuous
improvement, data utilization and evaluation) to develop formal and effective ways to engage elementary, middle and high schools students in career exploration and development programs.

CPS is engaged in several CTE reform efforts, including developing career academies and aligning their CTE curriculum with labor market demand. For example, Austin Polytechnical Academy (APA) is supported by the local manufacturing industry and employs the theory and practice of student project-based learning and career development in the context of rigorous academic learning. Furthermore, the City of Chicago is also engaged in the Smarter Cities Challenge Chicago initiative to implement the P-Tech model of career instruction in 5 schools across Chicago. CPS is also in the process of implementing dual enrollment for seniors in high school to take college-level courses at the City Colleges of Chicago (CCC).

Traditionally, there had been a disconnect between students leaving CPS with high school degrees yet being unable to pass entrance exams for placement into college-level courses at CCC, resulting in these students taking many remedial non-college credit courses. Better preparation and skill-development in math and language at CPS is needed to ensure graduating CPS students can successfully transition to CCC and other post-secondary institutions to take college-level courses.

In regard to bringing career-relevant instruction to early grades, CPS should consider exposing younger students to careers and work-related learning. Examples for how to bring career-related instruction into the classroom include Sarah Klerk’s recent book *Pass it On: Connecting the Dots Between Education, Interest and Careers* as well as the CareerStart intervention for middle school students, which has demonstrated promising academic achievement results through randomized controlled trials in North Carolina.7

**Economic and Business Development**

**Recommendation: Align workforce development with economic development.**

The City of Chicago has very strong economic development efforts, largely lead by World Business Chicago. However, these economic development efforts are currently only loosely connected, if at all, with the workforce development efforts of the city. Prior research, including a 2003 report by the US Government

Accountability Office, notes the promising outcomes of collaborative engagement between workforce development and economic development entities to both retain and recruit businesses and obtain employment for residents. As businesses are approached to discuss bringing new jobs to Chicago, workforce development representatives should also be at the table to discuss the workforce development advantage to employers, including the availability of skilled labor as well as various workforce training and services, including incumbent worker training and other customized business services.

Whenever economic development is equated with job creation, consideration must be given to what kinds of jobs are being prioritized. For example, it does little good to create jobs in robotics if the workforce is not prepared with the appropriate skills training to secure such jobs. And vice versa: accurate information about what employment sectors, and job niches within that sector, have quality workforce development programs associated with them should be the guide for prioritizing job creation. Recognition should be given to the reality that some jobs are not attainable by people most in need of work, and they will not be without an adequate investment in skills training.

In various reports produced on workforce development in Chicago, improving the alignment of workforce and economic development was a common theme. The overall message from these reports was there is a two-sided process to addressing the supply and demand challenges of workforce development and employment; locate the industries with workforce demands and growth, and then train the workforce to meet those demands. This systematic approach creates a path of least resistance in employing the region’s workforce, and potentially increases the likelihood of better job retention and higher wages. According to the Mayor’s Transition Plan, “improving the alignment between workforce development programs and the actual jobs for which businesses are hiring will employ significantly more people in better jobs”. The reports provide multiple methodologies on introduction, integration, and execution, however the overall message is workforce development, education, and industry need to function in concert in order to achieve a solid return on investment.


Recommendation: Support an equity and growth business and economic development agenda in Chicago and Cook County. There needs to be specific, strategic investment (i.e. capital, technical assistance) in innovation in advanced manufacturing and local industry clusters, particularly in communities of color.

Chicago Advanced Manufacturing
According to the Center for Labor and Community Research (CLCR), Chicago manufacturing remains strong, notwithstanding the prevailing narrative in the popular culture and media. In Illinois there are 11,000 manufacturing companies which comprise 11% of the regional economy. These companies hire 320,000 employees. For production occupations in the state of Illinois, the median annual wage is $30,720, and for first-line supervisors/managers of production and operating workers, the median annual wage is $57,060.\(^{10}\)

CLCR argues that when one analyzes the sectoral approach to workforce and economic development pioneered by CLCR, Shorebank Neighborhood Institute and others, the primary sector for achieving the economic and social outcomes we want and deserve is that of advanced manufacturing. CLCR also argues that advanced manufacturing is the only sector that “builds a large middle class and end poverty.” It facilitates high wage careers and generates five jobs in other sectors of the economy, and provides a tax base for government. Moreover, it’s the only sector that can address the crisis of the environment (CLCR 2011).

One organization currently providing services to train workers for employment in the manufacturing industry is the Jane Addams Resource Corporation (JARC). JARC is a pioneering leader in sector-based training and workforce development and has a long history of training incumbent workers and unemployed adults in the manufacturing industry. Its training programs have been studied by the Aspen Institute and were used to help develop the definition of a sectoral model.

JARC’s comprehensive training programs serve both manufacturing employers and job seekers, respond to industry demands, and address the critical skills shortages in manufacturing, the single most vexing concern for firms.

In the last two years, JARC has seen remarkable results, placing nearly 100% of its trainees in jobs with career paths and access to benefits, showing strong anecdotal evidence that the manufacturing sector is rebounding. Most of these are jobs that

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employers would otherwise be unable to fill given the skills deficiencies of the unemployed. Since the beginning of program, overall completion rates, placement rates and retention rates are 92%, 82%, and 91%, respectively.

Most promising is JARC’s ability to place ex-offenders. 55% of all of JARC’s trainees have a criminal background. A recent study of these trainees uncovered that their placement and retention rates are nearly identical to those of non ex-offenders.

Economic Development: Worker Cooperatives and Recommendations from ICIC

Worker Cooperatives
Worker cooperative businesses are uniquely organized: the employees both own and control the business, and thus, have the ability to select their own management. The cooperative structure is “the only legal business structure that guarantees workers an equitable share in company proceeds”. Worker cooperatives have proven to be successful in areas such as the Basque Region of Spain and Emilia-Romagna, Italy. Though the cooperative model is not particularly common in the United States at this time, the success the model has seen in other regions provides opportunities to examine how such a structure could be replicated successfully in places such as Chicago.

The Initiative for a Competitive Inner City
The Initiative for a Competitive Inner City (ICIC), a leading authority on urban economies, advises cities and anchor institutions how they can leverage one another’s resources to spark economic development and create local jobs. They identify specific strategies regarding what works in urban economic development, including using a cluster-led approach to identify centers of potential economic strength, leveraging anchor institutions as key economic and community drivers, and improving access to capital to accelerate business development.

12 See Appendix IV for more details on these specific worker cooperative models
A cluster is “a group of companies and industries in a geographic area whose activities are interrelated enough to function as an economic ‘ecosystem’.”\(^{14}\) This community-based focus invites business development along both public and private interests, and identifies platforms for intra-sector collaboration. In Chicago, ICIC identified the fields of education and knowledge creation, local community and civic organization, local education and training, metal manufacturing, and processed food as cluster strengths.

Anchor institutions, such as universities, medical centers, and cultural facilities, support their surrounding communities by filling several distinct, economic roles: these institutions are not only a source of direct employment, but they also purchase goods and services, and possibly also serve as a place for workforce development and community infrastructure building. If cities identify these anchor institutions, and determine how to best leverage their economic abilities, these institutions could be extremely useful resources for collaboration.

**Recommendation:** Break infrastructure and large service contracts into smaller pieces so smaller firms (including minority and women-owned firms) can get work. The Jobs Committee Working Group also recommends that the City and County embrace an equity process for decision-making and distribution of infrastructure services and investment on behalf of their people.

The Jobs Committee Working Group recommends that the City of Chicago split up larger service contracts into smaller contracts and place them into sheltered markets. $20,000 contracts or less would be sheltered and allow for right-to-first bid for minority-based enterprises (MBEs).

Moreover, connected to our recommendation around de-coupling City contracts, the Jobs Committee Working Group recommends that the City of Chicago and County government practice PolicyLink’s seven principles of equity with respect to infrastructure development strategy and investment\(^{15}\). These principles stress the widespread impact of infrastructure decisions, and highlight strategies of decision making that lead to the most equitable decision for all involved.

\(^{14}\) See Appendix V
\(^{15}\) See Appendix VI
**Workforce data**

**Recommendation: Improve a limited workforce data and information infrastructure system**

Chicago’s workforce development and education systems aim to ensure those they serve develop skills, achieve marketable educational and training credentials, and obtain employment. As part of operating these programs, administrators and policymakers need data and information about participants, their program experiences, and ultimately their outcomes to inform decision-makers about what aspects of programs and services may be working and what aspects may need improvement.

During the last two years, many of the workforce development and education public agency partners have collaborated as part of the CWICstats initiative at Chapin Hall at the University of Chicago, which serves as the data and research arm for the Chicago Workforce Investment Council (CWIC). These partner agencies have shared individual-level program participant data with Chapin Hall researchers to analyze program performance outcomes and pursue innovative research using longitudinal data and linked data to assess outcomes over time and across programs.

Through these experiences working with several City and State public agency partners and their data, there are several concerning issues that should be addressed that will promote improved workforce development and education data quality, availability, usage, and transparency to inform Chicago policymakers and stakeholders.

Some workforce and education public agencies have very well-developed administrative data systems that collect and track very informative data on their participants’ characteristics, program experiences, and outcomes. Specifically, Chicago Public Schools (CPS) has excellent and very detailed student-level data systems that they use internally for program improvement and they also share with research partners, such as Chapin Hall and the Consortium on Chicago School Research, who conduct advanced analysis and research of benefit to CPS.

Many public agencies, however, have significant challenges with their data systems, including not having an individual-level data system, having archaic data tracking methods, and having problematic and unreliable data. Furthermore, in addition to the data systems and quality itself, many agencies have not used or shared their administrative program data to achieve its fullest potential of being used to inform
agencies of program performance and analyze factors impacting student or participant success. These challenges are described in more detail below.

**Data systems and quality**

When collecting and analyzing administrative program data, it is best to have individual-level data at the student- or participant-level. Some agencies, such as the Department of Family and Support Services (DFSS), do not have individual-level administrative data on many workforce development programs. They currently may only have aggregate numbers reporting overall participant enrollment and outcomes for a particular program, preventing this data to be used for further analysis, such as linking across datasets or studying individual factors to assess factors related to outcomes. In addition, some of the data is being collected and analyzed using archaic or insufficient data software, such as Excel. While DFSS is in the process of developing an automated case management system, which in theory should be able to collect individual-level participant data for further analysis, current DFSS data on workforce programs is very limited. The data that is useful on DFSS programs, specifically the Workforce Investment Act (WIA) program, comes from the state’s automated data system for workforce development.

Also, some data from city public workforce development and education agencies are of questionable quality and cannot be used reliably. For example, data integrity issues have been found at the City Colleges of Chicago (CCC), in part due to inconsistency and decentralization of data collection and data entry at each of the college campuses. CCC has acknowledged this problem and made technology and improving data quality part of their focus with their recent reinvention efforts, however much of that work is still in development.

**Data usage and sharing**

Workforce development and education agencies have predominantly used their administrative program data for internal performance assessment and program improvement. Several agencies have partnered with external research organizations to share their administrative data for more advanced analysis and research to answer important policy questions of interest to the agencies.

Although there has been successful collaboration between public agencies and qualified external research organizations, such as with the Chapin Hall CWICstats initiative, there are many challenges that make this informative and valuable research difficult to pursue. Specifically, establishing legal data sharing agreements can take months and even years to develop and enact, with frequent delays when seeking the proper permissions from agency administrators and lawyers. Even after
Data sharing agreements are in place, data requests and acquisition can often be a slow process since agencies may have limited staff able to assist with data requests. There can even be legal hurdles with agency lawyers preventing the sharing of critical data, such as social security numbers, that are necessary to link individual-level workforce program data to other datasets, including employment and wage data and post-secondary education data. Specifically, strict legal interpretation of social security number protection laws, which actually allow for the sharing of these data for program administration and improvement purposes, has delayed progress in being able to establish data sharing agreements with agencies and prevented workforce program data from being linked to important employment and wage data to assess these outcomes.

Lastly, workforce development agencies, specifically DFSS, have made progress toward making data transparent and making valuable program information available to the public. By providing information on program outcomes to the public, agencies can be accountable to a wider group of stakeholders and also provide useful information to assist program participants in making informed decisions about what training program to pursue. However, resources to support the data analysis and website development efforts to make program data transparent are often limited.

**Specific Data Recommendations**

1. Provide resources and support city agencies in the technical development and improvement of individual-level administrative data systems, which will provide more valid and reliable data for program assessment and research.

2. Encourage public agencies to participate in collaborative efforts, such as CWICstats, to promote cross-agency collaboration and research, so program performance and participant outcomes can be assess over time and across multiple programs.

3. Support the sharing and use of data with qualified external research institutions, who can conduct research to provide information supporting data-informed and evidence-based program management and policy decision-making.

4. Promote the sharing of data with qualified external research institutions by minimizing administrative and legal roadblocks to facilitate data sharing. This in part can be done by educating city and public agency lawyers about the importance of data sharing agreements and the need to share social
security numbers for policy development, program improvement, and research efforts.

5. Provide resources and support agencies in their efforts to make data transparent to the public for promoting accountability and informing consumers.

6. Given the interconnectedness of the Chicagoland area, use a regional scope, and not just a citywide perspective, when considering workforce development data and research.

7. The Chicagoland area workforce development agencies and stakeholders should use their expertise and leverage to influence larger state-level data initiatives, such as the Illinois Longitudinal Data System and the Illinois Workforce Data Quality Initiatives, so that these efforts can ultimately benefit local municipalities.

Appendix I

US Department Of Labor Industry Profile: Advanced Manufacturing Experience

Innovative Workforce Solution to Help the Advanced Manufacturing Industry Address Hiring, Training, and Retention Challenges

The U.S. Department of Labor has announced a series of investments totaling more than $105 million to address the workforce needs of the advanced manufacturing industry. These investments result from forums which the U.S. Department of Labor hosted over the past three years with industry leaders, educators, and the public workforce system to identify the industry’s hiring, training, and retention challenges.

DOL has sought to understand and implement industry-identified strategies to confront critical workforce challenges. It has listened to employers, representatives from industry associations and labor-management organizations, and others associated with the advanced manufacturing industry regarding their efforts to identify challenges and implement effective workforce strategies. However, the challenges they face are far too complex for one institution or industry sector to solve alone. DOL’s Employment and Training Administration is supporting comprehensive partnerships that include employers, the public workforce system, and other entities that have developed innovative approaches that address the workforce needs of business while also effectively

helping workers find good jobs with good wages and promising career pathways in the advanced manufacturing industry.

This set of workforce solutions is based on the advanced manufacturing industry’s priorities that address issues such as:

- **Training for Innovation**: The capacity for innovation is the primary competitive advantage for U.S. manufacturers in the global marketplace. Employers need workers who are continually focused on improving processes and products.
- **Pipeline Development**: Too few young people consider manufacturing careers and often are unaware of the skills needed in an advanced manufacturing environment. Similarly, the K-12 system neither adequately imparts the necessary skills nor educates students on manufacturing career opportunities.
- **Career Awareness**: Manufacturing confronts a negative public image, characterized by such phrases as “declining,” “dirty,” “low pay,” etc. Consequently, too few highly skilled workers seriously consider manufacturing careers.
- **Immigration**: The manufacturing workforce is increasingly foreign-born, meaning that possessing adequate English language skills is becoming a prominent challenge. Employers have had difficulty finding English language programs that suit their needs.
- **Foundational Skills and Competencies**: Manufacturers experience difficulty finding and hiring workers with basic personal effectiveness, academic, workplace, and technical skills.
- **Small Business Issues**: Many small- and medium-sized manufacturers do not have human resources departments and have little experience organizing training programs for their workers.
- **Incumbent Worker Training**: Manufacturers assert that rising health care and other costs limit the resources available for incumbent worker training. Furthermore, WIA imposes performance standards that often discourage incumbent worker training.
- **Training the Supply Chain**: Manufacturers increasingly need integrated training programs for workers throughout the supply chain.

The grants are intended to provide genuine solutions, leadership, and models for partnerships that can be replicated across the country.
Appendix II

President Obama Launches Advanced Manufacturing Partnership

In June of 2011 at Carnegie Mellon University, President Obama launched the Advanced Manufacturing Partnership (AMP), a national effort bringing together industry, universities, and the federal government to invest in the emerging technologies that will create high quality manufacturing jobs and enhance our global competitiveness. Investing in technologies, such as information technology, biotechnology, and nanotechnology, will support the creation of good jobs by helping U.S. manufacturers reduce costs, improve quality, and accelerate product development.

The President’s plan, which leverages existing programs and proposals, will invest more than $500 million to jumpstart this effort. The President believes that even as we live within our means, we must invest to win the future. Investments will be made in the following key areas: building domestic manufacturing capabilities in critical national security industries; reducing the time needed to make advanced materials used in manufacturing products; establishing U.S. leadership in next-generation robotics; increasing the energy efficiency of manufacturing processes; and developing new technologies that will dramatically reduce the time required to design, build, and test

manufactured goods. Leading universities and companies will compliment these federal efforts helping to invent, deploy and scale these cutting-edge technologies.

“Today, I’m calling for all of us to come together- private sector industry, universities, and the government- to spark a renaissance in American manufacturing and help our manufacturers develop the cutting-edge tools they need to compete with anyone in the world,” said President Obama. “With these key investments, we can ensure that the United States remains a nation that ‘invents it here and manufactures it here’ and creates high-quality, good paying jobs for American workers.”

The AMP is being developed based on the recommendation of the President’s Council of Advisors on Science and Technology (PCAST), which released a report [today] entitled “Ensuring Leadership in Advanced Manufacturing.” The PCAST report calls for a partnership between government, industry, and academia to identify the most pressing challenges and transformative opportunities to improve the technologies, processes and products across multiple manufacturing industries.

The AMP will be led by Andrew Liveris, Chairman, President, and CEO of Dow Chemical, and Susan Hockfield, President of the Massachusetts Institute of Technology. Working closely White House’s National Economic Council, Office of Science and Technology Policy and the PCAST, AMP will bring together a broad cross-section of major U.S. manufacturers and top U.S. engineering universities. The universities initially involved in the AMP will be the Massachusetts Institute of Technology, Carnegie Mellon University, Georgia Institute of Technology, Stanford University, University of California-Berkeley, and University of Michigan. The manufacturers initially involved in the AMP will be Allegheny Technologies, Caterpillar, Corning, Dow Chemical, Ford, Honeywell, Intel, Johnson and Johnson, Northrop Grumman, Procter and Gamble, and Stryker.

The U.S. Government has had a long history of partnership with companies and universities in developing and commercializing the new technologies that have been the foundation of our economic success – from the telephone, to the microwave, to the jet engine, to the internet. The AMP will provide the platform for similar breakthroughs in the next decade, by building a roadmap for advanced manufacturing technologies, speeding ideas from the drawing board to the manufacturing floor, scaling-up first-of-a-kind technologies, and developing the infrastructure and shared facilities to allow small and mid-sized manufacturers to innovate and compete.

**Major Commitments to Advanced Manufacturing Being Made Today**

To launch the AMP, the President today announced a number of key steps being taken by the federal government:

- **Building domestic manufacturing capabilities in critical national security industries:** Starting this summer, the Departments of Defense, Homeland Security, Energy, Agriculture, Commerce and other agencies will coordinate a government-wide effort to leverage their existing funds and future budgets, with an initial goal of $300 million, to
co-invest with industry in innovative technologies that will jumpstart domestic manufacturing capability essential to our national security and promote the long-term economic viability of critical U.S. industries. Initial investments include small high-powered batteries, advanced composites, metal fabrication, bio-manufacturing, and alternative energy, among others.

- **Reducing the time to develop and deploy advanced materials:** The Materials Genome Initiative, would invest more than $100M in research, training and infrastructure to enable U.S. companies to discover, develop, manufacture, and deploy advanced materials at twice the speed than is possible today, at a fraction of the cost. In much the same way that advances in silicon technology helped create the modern information technology industry, advanced materials will fuel emerging multi-billion dollar industries aimed at addressing challenges in manufacturing, clean energy, and national security.

- **Investing in next-generation robotics:** The National Science Foundation, National Aeronautics and Space Administration, National Institutes of Health and the Department of Agriculture are coming together to make available today $70 million to support research in next generation robots. These investments will help create the next generation of robots that will work closely with human operators – allowing new ability for factory workers, healthcare providers, soldiers, surgeons and astronauts to carry out key hard-to-do tasks.

- **Developing innovative energy-efficient manufacturing processes:** The Department of Energy will launch an effort to leverage their existing funds and future budgets, with initial goal of $120 million to develop innovative manufacturing processes and materials to enable companies to cut the costs of manufacturing, while using less energy.

Additional complementary steps as part of AMP will include:

- **Defense Advanced Research Projects Agency exploration of new approaches that have potential to dramatically reduce – by up to a factor of 5 – the time required to design, build, and test manufactured goods while enabling entrepreneurs to meet Defense Department needs.**

- **Massachusetts Institute of Technology, Carnegie Mellon University, Georgia Institute of Technology, Stanford University, University of California-Berkeley, and University of Michigan commitment to form a multi-university collaborative framework for sharing of educational materials and best practices relating to advanced manufacturing and its linkage to innovation. The universities will also join together with industry partners and leading government agencies to define research opportunities and build a collaborative roadmap for identifying key technology priorities.**

- **Commerce Department development of an advanced manufacturing technology consortium, starting with $12 million in FY12, to identify public private partnerships to tackle common technological barriers to the development of new products.**

- **Proctor & Gamble announcement that it will make available advanced software at no cost to American small and mid-sized manufacturers through the recently launched Midwest Modeling and Simulation consortium. This is a highly valuable digital design tool usually unavailable to smaller consortiums.**
• Department of Energy launch of an initiative with the Ford Motor Company and the National Association of Manufacturers to make use of the Department’s National Training & Education Resource to educate and train a new generation of manufacturers.

Appendix III

Below is CLCR Executive Director, Dan Swinney’s Presentation at the conference on Diverse Manufacturing Supply Chain Alliance/ Innovation and Equity: The Chicago Manufacturing Renaissance Model

A. Minorities and particularly African Americans are profoundly marginalized in the manufacturing economy. Consider the following information from the 2007 Census Bureau, Survey of Business Owners

1) There are 5.8 million minority-owned businesses—in all sectors
2) 1.9 million are black owned businesses
3) 95% of these companies only have one employee/owner!
4) And 64% of the 5% have 2-4 employees;
5) And of this, 2-3% at best are manufacturing companies.

B. These numbers reflect a marginalization for communities and people of color that is profound.

C. On the other hand:
1) Our society is 45%+ minority—almost majority black and Hispanic;

2) There’s a broad recognition of the value of diversity and equity;

3) There’s a huge demand to fill the gaps in manufacturing due to the baby boom—a huge opportunity for people of color to gain a position in manufacturing
   a) 3 million unfilled jobs
   b) 40% of small companies facing succession crisis

4) A viable and vibrant manufacturing sector for the time being.

5) A growing recognition by our leadership of the need for a manufacturing renaissance;

6) An opening of enormous proportion for communities of color to lead in the transformation of our entire economy, and in doing so, dramatically change the scale of the engagement of people of color in manufacturing.

D. Public perception of manufacturing is of fundamental importance. An overwhelming percentage of people think manufacturing is dead or dying and not worth their investment as a student, a parent, a teacher, or an elected official. This is particularly true in the minority community in light of the experience and narrative about manufacturing.

E. Without changing public perception broadly as well as in particular sectors, manufacturing companies, trade associations, labor, and others will not secure the support they need in light of their particular interests, much less will those who understand the societal importance of manufacturing.

F. The discussion of manufacturing, communities, and global leadership requires a candid discussion about race engaging the profoundly negative history of exploitation, discrimination, and exclusion in every aspect of manufacturing; as well as the positive aspects of the past and the huge opportunities in the future particularly in communities of color.

G. My focus is particularly on the African American community, but the same general themes apply to other communities as well.

H. Our economy and nation was built on the foundation of slavery of Africans—a brutal history that is clear and well understood.
I. After the Civil War ex-slaves and later immigrants from Mexico, Central and Latin America became the foundation for agricultural economy living often in impoverished conditions and a semi-feudal relationship with the owners of plantations and big farms.

J. The explosion of manufacturing in northern cities beginning at the turn of the 20th Century became a magnet for great waves of migration from the South, bringing millions of African Americans and later Latinos into northern urban settings.

1) On one hand, these jobs served as an entry point into the middle class with an annual income, benefits, and socialization superior to their rural homes and livelihoods.

2) On the other hand, this new status was accompanied by discrimination, super exploitation, and marginalization perhaps not at the same level as in the South but comparable.

a) Jobs available to African Americans and Latinos in general were the most menial, dangerous, dirty, and lowest paid;

b) These workers were the last hired and the first fired;

c) There was rampant discrimination by management in these companies as well as rampant discrimination in the labor movement both in addressing the concerns of minority employees or bringing minority candidates into positions of authority within the company or union.

d) There was and is almost no participation in ownership of manufacturing companies. In a city like Chicago that is 60 percent of color, less than three percent of its manufacturing companies are owned by African Americans and Hispanics.\(^{18}\)

3) And finally, the massive de-industrialization of our country in the 1970s, 80s, and 90s took place in communities of color and gave rise to what we know as urban poverty today.

4) This history has left parents, elected officials, students, educators, policy leaders, and activists skeptical at best about the promise of manufacturing for minority communities.

K. Over the decades, some conditions improved, but only as a product of a fight—including the fight of enormous proportions—the Civil Rights Movement of the 1960s.

L. The objectives of that fight that still guide the struggle for civil rights today are for inclusion within existing companies, agencies and institutions; and for a greater and more equitable distribution of wealth.

M. These are incredibly worthy and important objectives, yet, particularly in a time of such deep crisis that is faced by our entire society and particularly communities of color, we can learn from other models.

*December 5, 2011 / Dan Swinney
Presentation at the conference of the Diverse Manufacturing Supply Chain Alliance*

**Appendix IV**

In 2011, Sequane Lawrence and community economic development practitioners from around the country and CLCR staff/leaders before that, traveled to the Basque Region of Spain to study the Mondragon Corporation, a network of worker owned cooperatives. Mondragon represents the development of a sophisticated democratic economy predicated on worker-owned economic development and an egalitarian civil society. Mondragon has developed over 100 companies employing 130,000 people. The Mondragon unemployment rate is less than 5% compared to the Basques regions unemployment rate of 11% and the rest of Spain which is witnessing more than 21% unemployment, as a global recession abounds (as of October 2011).

Emilia-Romagna, Italy has a similar story. There the government provides assistance to 60,000 small manufacturing companies privately and cooperatively owned (*CLCR*). Emilia- Romagna’s unemployment rate is 5% as well, while Italy’s unemployment rate is over 10%.

What accounts for the low unemployment rates in these two regions in countries undergoing severe economic collapse? We are convinced the answer is because of
their worker–owner economy and emphasis on advanced manufacturing. We recommend that Chicago municipal, civic, community and business leaders rigorously analyze the Mondragon and Emilia-Romagna experience, customize and replicate them for Chicago and the region.

Appendix V

Strategies and best practices for growing inner city economies and creating jobs
ICIC has studied inner city economies in 100 U.S. metropolitan areas since 1994 and conducted on-the-ground consulting engagements in 20 inner cities. We have identified a set of strategies and best practices for growing inner city economies and creating jobs:

- Utilize a cluster-led approach to identify market opportunities and focus business attraction and retention efforts.
- Promote and leverage anchor institutions as key economic and community drivers.
- Accelerate inner city business development by improving access to capital, providing business and management education for business owners and connecting businesses to procurement and supply chain networks.

Cluster-Led Economic Development
A cluster is a group of companies and industries in a geographic area whose activities are interrelated enough to function as an economic “ecosystem.” Transportation and Logistics is an example of an industry cluster. So are Education, Business Services and Healthcare.
Cities that utilize a cluster-led approach to economic development make their clusters the center of business development investment and execution. ICIC has identified a set of initiatives that are effectively employing a cluster-led approach:

- **New York City’s Department of Small Business Services (SBS)** utilizes a sector-led strategy to manage its career centers located in the five boroughs of New York City. The centers serve businesses in three target sectors - transportation, healthcare and manufacturing - and are led by experts with ties to the private-sector industries they support.

- **U.S. Economic Development Agency Innovation Clusters** is a federally funded effort to promote and execute cluster-led economic development strategies throughout the U.S. The initiative is being supported by the development of a national research center for business clusters and a grant program to support cluster-led initiatives across the country.

- **Boston Back Streets Program** is a cluster-led business development and retention program developed to support Boston’s industrial and commercial businesses. The city provides support ranging from solving space and industrial land needs to educating Boston’s industrial firms about the permitting and licensing processes.

- **Opportunity Newark** is the comprehensive city-led cluster approach to economic development for Newark. Opportunity Newark has developed and executed corresponding business and workforce development action plans for four target clusters: Transportation, Logistics and Distribution; Health Services; Education and Knowledge Creation; and Entertainment, Arts and Retail.

- **Cluster Mapping Project**, developed by the Institute for Strategy and Competitiveness at Harvard Business School and funded by the U.S. Economic Development Administration (EDA), provides cluster profiles and performance for various geographic areas.

**Leverage Anchor Institutions**

Inner cities are home to more than their share of America’s greatest anchor institutions, universities, medical centers and cultural facilities, which spend billions on goods and services. As engines of local economic growth, anchors play several distinct roles within their communities, including purchaser, workforce developer and community infrastructure builder.

These roles present cities with the opportunity to leverage their anchor institutions as key economic drivers for their communities. ICIC has uncovered a set of papers, initiatives and resources for cities that want to work with their local anchors.

- **Leveraging Colleges and Universities for Urban Economic Revitalization**, developed by CEOs for Cities and ICIC, is the initial framework that outlines the roles that universities can play in their communities.

- **Anchor Institutions and Urban Economic Development: From Community Benefit to Shared Value**, is an updated framework, created by ICIC and Harvard Business School professor Michael Porter, detailing the specific roles healthcare institutions play in their communities. In addition, the resource
describes best practices for each role that can be replicated in other communities.

- **Anchor Institutions: An Untapped Resource**, developed by ICIC and the U.S. Conference of Mayors Council for the New American City, outlines how mayors and economic development officials can utilize anchor institutions to create jobs in their communities.
- **How to Behave Like an Anchor**, a white paper by CEOs for Cities and Living Cities, examines how six institutions - five universities and one cultural center - function as community anchors and developers.
- **Anchor Institutions as Partners in Building Successful Communities and Local Economies**, produced by the Penn Institute for Urban Research, outlines a new role for the Department of Housing and Urban Development (HUD) serving as a facilitator and catalyst for anchor institution-community collaborations in cities and metropolitan regions, focused on housing, economic and community development, healthcare, schools and culture.
- **The Road Half Traveled**, written by Rita Axelroth and Steve Dub on behalf of the Democracy Collaborative at the University of Maryland, looks at a cross-section of 10 urban colleges and universities to evaluate whether their anchor initiatives take issues of economic inclusion into account, assess how these programs are organized and identify promising practices.
- **Penn IUR Roundtable on Anchor Institutions** convenes leaders from anchor institutions and other community stakeholders for full-day roundtable discussions and local case study evaluations. During the sessions, stakeholders work together to review strategies, uncover best practices and apply learnings for improving communities through leveraging anchors.

Accelerants of inner city business growth

Business growth is a core driver of urban economic development. Understanding what firms need to grow and thrive in urban communities will ultimately help drive the success of inner city economies. ICIC has identified three accelerants of inner city business growth -- improving access to capital, providing management and business education for business owners and connecting businesses to procurement and supply chain networks. ICIC has provided a set of key papers and initiatives for economic development practitioners wanting to learn more about each.

Access to capital

- **Capital Availability in Inner Cities: What Role for Federal Policy**, developed by ICIC, examines capital availability in America's inner cities and the role of federal policy. The paper received the KFS Promising Paper Award for 2011, which is bestowed on the authors of working papers with promising potential for impacting the understanding of entrepreneurship and innovation using the Kauffman Firm Survey (KFS).
- **A History of Emerging Domestic Markets**, issued by the Center for Capital Access and Job Formation at the Milken Institute, summarizes the current research on Emerging Domestic Markets (EDM) and offers recommendations on improving EDM capital access. The piece calls for the development of a "data consortium," or database, that leverages existing private and public
resources to provide opportunities for improved analysis, policymaking and product development.

- **NEXT American Opportunity**, authored by *Opportunity Finance Network*, a network of private financial intermediaries with over $11 billion invested to date, offers policy recommendations to extend the reach and scale of the following: Community Development Financial Institutions (CDFI) through research-led innovations and increased federal funding; the Community Reinvestment Act (CRA) by including all segments of the financial industry; New Market Tax Credit by making it permanent. The piece also calls for the development of a federal capital access program (CAP) for a loan loss reserve for small businesses.

- **Patterns of Financing: A Comparison between White- and African-American Young Firms**, released by the *Kauffman Foundation* as part of a research series utilizing the Kauffman Firm Survey, provides a look at how African-American firms access capital markets in their early stages and shows the disparities in the level of access by race. The report recommends a further look at the differences in capital access among minority-owned businesses in order to improve business growth and performance.

- **Capital and Job Creation: Driving Investment into America’s Inner Cities**, developed by ICIC and Bank of America, examines the impact of the *Inner City Capital Connections* program, designed to match inner city businesses with capital providers. Since its inception, participating companies have raised more than $372 million in capital. Mayors and business and economic development officials can nominate companies for the program.

Management education

- **Inner City 100: A Ten-Year Perspective**, written by ICIC, examines the characteristics of Inner City 100 firms and the factors influencing their successes. The report notes that firms with CEOs that have higher education levels and exposure to business mentors and examples have companies with higher annual revenues.

- **Interise** is a management education program for urban entrepreneurs. City officials and economic development practitioners can nominate growing small businesses for the program and read more about the impact and results from the program’s annual report.

- **Goldman Sachs’ 10,000 Small Businesses Initiative**, offers education, mentoring, technical assistance and capital access to underserved businesses and their CEOs through community colleges and community development financial institutions. In select cities across the country, economic development officials and business development professionals can nominate companies for the program.

Access to networks, supply chains and procurement

- **Breaking into the Corporate Supply Chain**, written by the *Center for an Urban Future*, reveals that very few small businesses become suppliers to the country’s largest corporations but argues that helping more firms make this leap could help grow small businesses.
Globalization: A Smarter Supply Chain for the Future, developed by Center for Advanced Purchasing Studies (CAPS), summarizes discussions with over 30 supply chain executives from large and multi-national companies and reveals policies and best practices for improving supply chains, including preparing small businesses to be suppliers.

Journal of Supply Chain Management, produced quarterly by the Institute of Supply Chain Management, provides a wealth of articles and resources outlining new procurement strategies and techniques for procurement managers, small businesses and business development professionals.

Appendix VI

Below is a summary of the principles in addition to PolicyLink’s research resources relative to transportation, school facilities and parks/open spaces (gleaned from PolicyLink’s website); areas in which the Jobs Committee Working Group also encourages serious examination.

The process for making decisions about infrastructure—what will be built or repaired, where it will happen, and how it will be paid for—should benefit broad constituencies. And the employment opportunities created as a result of infrastructure decisions should be available to all, particularly those who are underemployed or require skills to compete in the new global economy. It is with such goals in mind—achieving equity for both people and place—that PolicyLink developed the following equity principles. Taken together, they comprise a checklist
to guide infrastructure decision-making to ensure that everyone benefits from infrastructure investments.

**Principle 1:** Infrastructure decisions have widespread impact on housing, development, investment patterns, and quality of life and the outcomes of those decisions must be fair and beneficial to all.

**Principle 2:** Infrastructure plans should not have to compete with health, education, and human service needs, but should be recognized as equally critical governmental and societal responsibilities that produce equitable results.

**Principle 3:** Budget priorities within infrastructure areas (for example, repairing levees vs. restoring wetlands to ensure storm protection; more buses vs. new rail systems to improve transportation options; building hospitals vs. community clinics to address community health needs) should be thoroughly assessed using an equity lens.

**Principle 4:** Services and opportunities created by infrastructure decisions should be available and accessible to everyone in all types of communities.

**Principle 5:** Employment and economic benefits associated with building and maintaining infrastructure should be shared throughout the region.

**Principle 6:** The means for collecting revenues to support infrastructure improvements should be determined and applied in ways that are fair and do not disproportionately burden those with lower incomes.

**Principle 7:** Infrastructure decision-making should be transparent and include mechanisms for everyone to contribute to the planning and policymaking process.

**Action-oriented Resources**

The PolicyLink Center for Infrastructure Equity undertakes research to shed light on critical infrastructure challenges facing regions and communities—and offers policy and implementation solutions to help overcome those challenges.


*An Engine of Opportunity: A User’s Guide to Advocate for Transportation Equity in the 2009 Recovery Act*, a report by PolicyLink and Transportation Equity Network,
provides a roadmap for advocates to ensure stimulus-funded public transportation projects bring economic opportunity to millions of Americans hit first and worst by the economic downturn.

Safety, Growth, and Equity: Infrastructure Policies that Promote Opportunity and Inclusion, the first report in the PolicyLink infrastructure initiative, provides a framework for inclusion and equity issues in infrastructure planning, including seven principles of equity listed above. Other reports in this series are: